

27.8% Pb, 9.6% Zn, 113 oz. Ag (1952). As much as \$3.00 Au has also been shown. **Prod:** A few carloads prior to 1890, 1922-1923, 1938, 1941, 1947-1954. 3 tons Pb conc. and 15 tons Zn conc. in 1950. 20 tons Pb conc. and 35 tons Zn conc. in 1951. **Ref:** 7, pp. 62-63. 12, pp. 26, 75-76. 13, p. 121. 22, p. 5. 30, pp. 82-83. 63, p. 112. 66, 73, pp. 117-118. 97, 1905, 1907, 1908, 1912, 1917, 1922-1924, 1928, 1930. 98, 1922-1926. 129, pp. 119-121. 132, pp. 148-153. 133, p. 31. 141, pp. 21, 22. 158. 164, p. 176.

WHATCOM COUNTY

Allen Basin (6)
(see under gold)

Azurite (11)
(see under gold)

Baltimore (7)
(see under gold)

Chain Lakes (4)

Loc: NW $\frac{1}{4}$ sec. 24, (39-8E), at Chain Lakes. **Access:** 2 mi. by trail from end of Mt. Baker road. **Prop:** 3 claims. **Owner:** S. H. P. Vevelstad, Seattle, Wash. (1952—). H. E. Barnes, Bellingham, Wash. (1934). **Ore:** Zinc, silver, copper, gold. **Ore min:** Sphalerite, chalcopryrite, pyrite, bornite. **Gangue:** Volcanic rock and limestone. **Deposit:** Sulfides disseminated in brecciated volcanic rock, limestone, greenstone, and schist. **Dev:** 2 adits and several open cuts. **Assays:** Picked sample showed 47.8% Zn, 11.3% Fe, 1.6 oz. Ag. **Ref:** 158.

Chancellor (8)
(see under gold)

Evergreen (2)
(see under gold)

Galena
(see Verona under gold)

Gargett (1)
(see under gold)

Gold Hill (12)
(see under silver)

Golden Arrow
(see Tacoma under gold)

Great Excelsior (3)
(see under gold)

Indiana
(see Chancellor under gold)

Lincoln
(see Great Excelsior under gold)

Mammoth (9)
(see under gold)

Northern Cascade
(see Gold Hill under silver)

Peterson
(see Gold Hill under silver)

President
(see Great Excelsior under gold)

Tacoma (10)
(see under gold)

Verona (5)
(see under gold)

YAKIMA COUNTY

Black Jack (Green, Deep Creek) (4)

Loc: Sec. 36, (15-11E), on NW. side of Deep Cr. trail about 100 yd. N. of Little Twin Sisters Lk. **Access:** Trail. **Prop:** 17 claims. **Ore:** Zinc, copper. **Ore min:** Sphalerite, chalcopryrite, pyrite, bornite, chalcocite, galena. **Gangue:** Quartz, calcite. **Deposit:** 3 parallel mineralized stringers from 1 to 3 in. wide separated from one another by 12 in. of country rock. Country rock consists of thin-bedded sandstone, conglomerate, and mudstone. **Dev:** Inclined shaft at least 50 ft. deep, open cuts. **Assays:** Said to assay 20% to 30% Zn where exposed in Deep Cr. Extensions are of much lower grade but said to be of mining grade. **Ref:** 58, p. 7. 158.

Chinook (2)
(see under copper)

Deep Creek
(see Black Jack)

Gold Hill (1)
(see under gold)

Green
(see Black Jack)

Richmond (3)
(see under lead)

ZIRCONIUM

Properties—Because zirconium metal is difficult to prepare in a state of high purity, there is much confusion concerning its physical and chemical properties, many of the earlier data having been determined from impure metal. In the sponge form it is a bluish-black powder, but the fused metal is steel gray to lustrous silver white, resembling freshly broken cast iron. In many respects it resembles titanium, and also it is similar to hafnium. It is moderately hard, ductile, malleable, and strong. Zirconium is one of the most corrosion resistant of metals, resisting most acids, even when concentrated and hot, as well as hot concentrated caustic solutions. The metal is about five-sixths as heavy as iron, and its tensile properties are similar to those of mild steel. At high temperatures it has a great affinity for gases such as oxygen, nitrogen, hydrogen, and carbon dioxide. Unlike most

metals, it has a very low absorption for neutrons and therefore does not slow down atomic fission. Other properties are shown in the table on page 12.

Uses—The current chief use of zirconium metal is in atomic-power devices, where it is employed as a structural material. It has also been used as a "getter" in the production of electronic tubes, for lamp filaments, as a deoxidizer and scavenger in steel manufacture, in ammunition primers, blasting caps, rayon spinnerets, electrodes, photo-flash bulbs, flares, and welding rods for spot welding. It has proven useful in surgery for suture wires, bone pins, and plates, as tissue grows directly to it without deterioration. Zirconium is alloyed with iron and with nickel to increase their hardness, with tungsten to increase its ductility, with copper to increase its strength, and with aluminum and magnesium to improve certain of their

physical qualities. Zirconium oxide is used in refractories, being one of the most refractory oxides known. The oxide and other compounds are used in leather tanning, dyeing, ceramics, and pigments. Perfect crystals of the silicate, zircon, are valuable as gems.

Production—Very small amounts of zirconium have been produced in the United States for many years, but until 1952 the only substantial producer of the pure ductile metal was the United States Bureau of Mines, whose plant in 1953 was producing at the rate of 100,000 pounds per year, the entire output going to the Atomic Energy Commission. Although zircon occurs in black sands rather commonly in Washington, there has as yet been no production.

Prices—Zirconium metal powder was quoted in 1955 at \$10 per pound, which is not greatly different from the price 25 years earlier, but some of the purer ductile zirconium metal when first produced in this country sold for as much as \$650 per pound. The ore, zircon concentrate, 65 percent ZrO_2 , was quoted in 1955 at \$48 per ton de-

livered at Atlantic seaboard, which also was about the same as the price 25 years earlier.

Ore minerals—Zirconium is estimated to constitute 0.02 to 0.03 percent of the earth's crust and is more abundant than copper, lead, zinc, and silver combined. It is a constant and almost inseparable companion of hafnium. Although zirconium is a constituent of a number of minerals, only two are abundant enough to be ores. These are the silicate, zircon, $ZrSiO_4$, containing 67.2 percent ZrO_2 , and the oxide, baddeleyite, ZrO_2 , containing 74.0 percent zirconium. Both minerals generally carry up to 4 percent hafnium.

Geology—Zircon is a common accessory constituent of many granitic, volcanic, and metamorphic rocks and of sedimentary rocks and sands derived from them. Black sands of beach and river placers frequently are zirconium bearing. Common associated minerals are magnetite, ilmenite, monazite, and other heavy metallic and nonmetallic minerals. Baddeleyite occurs in pegmatites and placers derived from them.

OCCURRENCES

The map showing the numbered zirconium occurrences is plate 23, on page 59 in volume 2.

ASOTIN COUNTY

Clarkston Placer (1)
(see under gold, placer)

Snake River Placer
(see under gold, placer)

CLALLAM COUNTY

Cedar Creek Placer (2)
(see under gold, placer)

Lovelace Placer
(see Shi Shi Beach Placer under gold, placer)

Shi Shi Beach Placer (1)
(see under gold, placer)

Starbuck Placer
(see Cedar Creek Placer under gold, placer)

DOUGLAS COUNTY

Columbia River Placer
(see under gold, placer)

FERRY COUNTY

Wilmont Bar Placer (1)
(see under gold, placer)

GARFIELD COUNTY

Pomeroy Placer
(see under gold, placer)

GRAYS HARBOR COUNTY

Damons Point Placer (1)
(see under titanium)

PACIFIC COUNTY

Beards Hollow Placer (1)
(see under platinum)

McGowan Placer (2)
(see under iron)

ORE UNKNOWN

In the literature there are many mine and claim descriptions that fail to mention the ore present in the deposit. In some instances this was because no ore was found, and in others failure to mention the ore was merely

an oversight. Probably most prospects in this category are of little or no consequence, but, in order to make the record complete, they are listed and briefly described in the following pages.

OCCURRENCES

The map showing the numbered mineral occurrences where the ore is unknown is plate 27, on page 67 in volume 2.

ASOTIN COUNTY

Lightfoot Chief
Loc: Asotin County. **Ore:** Unknown. **Ref:** 158.

CHELAN COUNTY

Adolph (1)
Loc: Horseshoe Basin. **Owner:** Adolph Behring and Messrs. Speckler and Gates (1901). **Ore:** Unknown. **Ref:** 67, p. 38.

Bagley (29)
Loc: Near the Sunrise prospect, Wenatchee dist. **Owner:** C. P. Converse, Seattle, Wash. (1897). **Ore:** Unknown. **Ref:** 63, p. 71. 67, p. 46.

Chelan Consolidated Copper

Loc: On Red Mtn., Chiwawa dist. **Prop:** 130 claims. Probably part of the property later held by the Royal Development Co. **Ore:** Unknown. **Ref:** 67, pp. 22-23.

Chelan Falls (19)

Loc: Chelan Butte dist. **Ore:** Unknown. **Ref:** 105, no. 13, 1903, p. 324.

Christy (2)

Loc: Near the Twin Falls prospect, Stehekin dist. **Owner:** Albert Pershall and M. M. Kingman (1897). **Ore:** Unknown. **Ref:** 63, p. 83. 67, p. 39.

Clinton

Loc: Leavenworth dist. **Owner:** Louis Davis Laboratory Co. (1915). **Ore:** Unknown. **Ref:** 67, p. 28.

Comet

Loc: T. 35 N., R. 15 E., Stehekin dist. **Ore:** Unknown. **Ref:** 13, p. 177.

Copper King

Loc: On Agnes Cr., Stehekin dist. **Ore:** Unknown. **Ref:** 67, p. 39.

Diamond Drill (20)

Loc: Blewett dist. **Ore:** Unknown. **Ref:** 104, 7/15/32, p. 7.

East Side

(see Mayflower and East Side)

Eureka (24)

Loc: N. of Golden King mine, and extending into Dry Gulch, Wenatchee dist. **Owner:** Angus Mackintosh (1897). **Ore:** Unknown. **Ref:** 63, p. 71. 67, p. 46.

Gertie (3)

Loc: Stehekin dist. near Doubtful Lk. **Owner:** Genne and George Taylor (1897). **Ore:** Unknown. **Ref:** 63, p. 83. 67, p. 40.

Gibson (12)

Loc: SE $\frac{1}{4}$ sec. 2, (31-18E), on N. bank of Meadow Cr. **Prop:** 1 claim. **Owner:** E. F. Christy, A. H. Murdock, and Mr. Buckingham (1897). **Ore:** Unknown. **Ref:** 63, p. 81. 67, p. 32.

Gilman (25)

Loc: N. of Golden King mine on same ore zone, Wenatchee dist. **Owner:** D. H. Gilman, Seattle, Wash. (1897). **Ore:** Unknown. **Ref:** 63, p. 71. 67, p. 46.

Granite (13)

Loc: Center sec. 2, (31-19E), E. of Gibson prospect, Meadow Cr. dist. **Prop:** 1 claim. **Owner:** Frank Lightner (1897). **Ore:** Unknown. **Ref:** 63, p. 81. 67, p. 32.

Happy Thought (14)

Loc: SW $\frac{1}{4}$ sec. 2, (31-18E), adjoining Sunday Morning claim on the SE., Meadow Cr. dist. **Prop:** 1 claim. **Owner:** J. R. Moore (1897). **Ore:** Unknown. **Ref:** 63, p. 82. 67, p. 32.

Iron Cap (15)

Loc: SW $\frac{1}{4}$ sec. 1, (31-18E), Meadow Cr. dist. **Prop:** 1 claim. **Owner:** S. J. Gray (1897). **Ore:** Unknown. **Ref:** 63, p. 81. 67, p. 33.

Iron Cross (16)

Loc: E. of Blue Jay claim on Meadow Cr. **Prop:** 2 claims. **Owner:** Messrs. Turner and Bull (1897). **Ore:** Unknown. **Ref:** 63, p. 81. 67, p. 33.

Kingman (4)

Loc: Sec. 32, (35-15E), at head of lower Horseshoe Basin, adjoining Black Warrior on the E. **Access:** Road from Stehekin, and short trail. **Prop:** 2 claims. **Owner:** Keith and Kenneth Kingman, Chelan, Wash. (1942). **Ore:** Unknown. **Deposit:** Continuation of the Black Warrior vein. **Ref:** 67, p. 41.

Lady of the Lake (5)

Loc: Stehekin dist. **Ore:** Unknown. **Ref:** 13, p. 143.

Last Chance (26)

Loc: W. of and parallel to the Golden King property, Wenatchee dist. **Owner:** J. M. Rae (1897). **Ore:** Unknown. **Dev:** Short adit. **Ref:** 63, p. 71. 67, p. 46.

Leavenworth

Loc: Chelan County. **Ore:** Unknown. **Ref:** 97, 1914, p. 329.

Lucky Dick

Loc: Lk. Chelan area. **Ore:** Unknown. **Ref:** 158.

Mattie Jane (17)

Loc: SW $\frac{1}{4}$ sec. 1, (31-18E), E. of Emma Lee claim of King Solomon group, Meadow Cr. dist. **Prop:** 1 claim. **Owner:** S. J. Gray and William Rasnic (1897). **Ore:** Unknown. **Ref:** 63, p. 81. 67, p. 33.

Mayflower and East Side (10)

Loc: On Bridge Cr., Stehekin dist. **Owner:** William Keho and Henry Quinn (1897). **Ore:** Unknown. **Ref:** 63, p. 84. 67, p. 42.

Silver Bell (11)

Loc: Sec. 36, (32-18E), just E. of Moscow prospect, Meadow Cr. dist. **Prop:** 1 claim. **Owner:** Andrew Crumrine, J. W. Nicol, and N. B. Church (1897). **Ore:** Unknown. **Ref:** 63, p. 81. 67, p. 34.

State

Loc: 5 mi. above the mouth of Ingalls Cr. **Prop:** 6 claims. **Owner:** John and William Lynch. **Ore:** Unknown. **Ref:** 63, p. 77. 67, p. 18.

Stoner (23)

Loc: SW $\frac{1}{4}$ sec. 2, (22-17E), near head of Culver Gulch, Blewett dist. **Access:** Tractor road. **Owner:** Gold Bond Mining Co. (1936). **Ore:** Unknown. **Dev:** The Stoner tunnel was driven to be used for removal of ore from the Phipps tunnel across the ridge to the N. **Ref:** 67, p. 18.

Sunnyside (6)

Loc: Near Doubtful Lk., Stehekin dist. **Owner:** Britanus Stennis (1897). **Ore:** Unknown. **Ref:** 63, p. 83. 67, p. 43.

Sunrise (27)

Loc: Sec. 16, (22-20E), on N. side of Dry Gulch, Wenatchee dist. **Owner:** M. J. Carkeek (1897). **Ore:** Unknown. **Ref:** 63, p. 71. 67, p. 47.

Tibbie (28)

Loc: Near the Sunrise prospect, Wenatchee dist. **Owner:** P. P. Shelby (1897). **Ore:** Unknown. **Dev:** 40-ft. open cut. **Ref:** 63, p. 71. 67, p. 47.

Viola (7)

Loc: Near the Twin Falls prospect, Stehekin dist. **Owner:** F. F. Keller (1897). **Ore:** Unknown. **Ref:** 63, p. 83. 67, p. 44.

Water Fall (8)

Loc: Stehekin dist. **Ore:** Unknown. **Ref:** 13, p. 143.

White Cap (9)

Loc: Stehekin dist. **Ore:** Unknown. **Ref:** 13, p. 143.

Winnipeg (18)

Loc: Sec. 12, (31-18E), E. of Blue Jay claims, Meadow Cr. dist. Prop: 1 claim. Owner: A. Crumrine (1897). Ore: Unknown. Ref: 63, p. 81. 67, p. 34.

FERRY COUNTY**Anonymous (5)**

Loc: Belcher dist. Owner: Straight Mines Co. (1907). Ore: Unknown. Ref: 116, no. 6, 1907, p. 16.

Bonanza Fraction (27)

Loc: Keller dist. Owner: Konda Bros. M. & M. Co. (1915). Ore: Unknown. Ref: 158.

Bortle (4)

Loc: SE $\frac{1}{4}$ sec. 7, (37-34E), Belcher dist. Ore: Unknown. Ref: 114, no. 1, 1907, p. 3; no. 5, 1909, p. 71.

Bummer (28)

Loc: Keller dist. Owner: Silver Crown Mining Co. (1909). Ore: Unknown. Ref: 114, no. 5, 1909, p. 71.

Buster (20)

Loc: Covada dist. Ore: Unknown. Ref: 114, no. 5, 1909, p. 74.

Churchill (3)

Loc: Sec. 31, (38-34E), Belcher dist. Owner: North Colville Mining & Smelting Co. (1907). Ore: Unknown. Ref: 114, no. 5, 1909, p. 72. 116, no. 9, 1907, pp. 18, 23.

Cuba (2)

Loc: Curlew dist. Owner: LaFleur Mining & Smelting Co. (1908). Ore: Unknown. Ref: 33, 1908, p. 855.

Evening Star (1)

Loc: Danville dist. Ore: Unknown. Ref: 158.

Golden Zone (29)

Loc: Keller dist. Ore: Unknown. Ref: 158.

Goldsmith (12)

Loc: Sec. 22, (32-36E), Covada dist. Ore: Unknown. Ref: 58, p. 26.

Iron Age (30)

Loc: Keller dist. Ore: Unknown. Ref: 158.

Iron Rod (6)

Loc: Belcher dist. Ore: Unknown. Ref: 158.

Ironsides (26)

Loc: NE $\frac{1}{4}$ sec. 2, (31-36E), Covada dist. Ore: Unknown. Ref: 158.

Josie (8)

Loc: Republic dist. Ore: Unknown. Ref: 158.

Kirkpatrick (13)

Loc: SE $\frac{1}{4}$ sec. 25, (32-36E), Covada dist. Ore: Unknown. Ref: 158.

Last Chance (17)

Loc: NW $\frac{1}{4}$ sec. 32, (32-36E), Covada dist. Ore: Unknown. Ref: 158.

Liberty Bell (21)

Loc: Covada dist. Ore: Unknown. Ref: 158.

Lincoln (31)

Loc: Keller dist. Ore: Unknown. Ref: 158.

Lookout (14)

Loc: NE $\frac{1}{4}$ sec. 36, (32-36E), Covada dist. Ore: Unknown. Ref: 158.

Lost Lode (9)

Loc: Republic dist. Owner: Flathead Exploration & Development Co. (1918). Ore: Unknown. Ref: 112, p. 178.

Maple (10)

Loc: Republic dist. Ore: Unknown. Ref: 158.

Meadowlark (18)

Loc: SE $\frac{1}{4}$ sec. 30, (32-36E), Covada dist. Ore: Unknown. Ref: 158.

Mohawk (11)

Loc: Republic dist. Ore: Unknown. Ref: 158.

Mountain View (15)

Loc: NW $\frac{1}{4}$ sec. 26, (32-36E), Covada dist. Ore: Unknown. Ref: 158.

Raspberry (22)

Loc: SW $\frac{1}{4}$ sec. 27, (32-36E), Covada dist. Ore: Unknown. Ref: 158.

Rising Sun (19)

Loc: NE $\frac{1}{4}$ sec. 32, (32-36E), Covada dist. Ore: Unknown. Ref: 158.

Salina (7)

Loc: Belcher dist. Ore: Unknown. Prod: 1915. Ref: 158.

Seattle (23)

Loc: Covada dist. Ore: Unknown. Ref: 158.

Stemwinder (24)

Loc: Covada dist. Ore: Unknown. Prod: 1939. Ref: 97, 1940, p. 477.

Tomboy (16)

Loc: NW $\frac{1}{4}$ sec. 36, (32-36E), Covada dist. Ore: Unknown. Ref: 158.

Tyler (25)

Loc: Covada dist. Ore: Unknown. Prod: 1939. Ref: 58, p. 69. 97, 1940, p. 477.

Wells (32)

Loc: Keller dist. Ore: Unknown. Ref: 158.

GRAYS HARBOR COUNTY**Damons Point (1)**

Loc: Grays Harbor County. Ore: Unknown. Ref: 105, no. 4, 1904, p. 70; no. 5, 1908, p. 78.

KING COUNTY**Ascherfeld (Jones, Sunday Creek) (7)**

Loc: NE $\frac{1}{4}$ sec. 24, (25-9E), on SW. slope of Mt. Webster. Elev: 2,100 ft. Access: Reached from North Bend by 22 mi. of graveled road and 2 mi. of private road. Prop: Large group of unpatented claims including 13 formerly held by the Defense Mining Co. Owner: Ascherfeld Mining Associates, Inc. (1947). Ore: None. Ore min: None. Deposit: Open cut in black argillite shows no mineralization of any kind. Dev: Open cut. Improv: 4 buildings, compressor, diamond drill, 2 bulldozers, 4 light plants, various vehicles (1947). Ref: 158.

Belle

Loc: Miller R. dist. Ore: Unknown. Ref: 63, p. 38.

Black Jack (15)

Loc: On Mt. Si, 1 $\frac{1}{2}$ mi. from North Bend. Prop: 2 claims: Black Jack, Galena Star. Ore: Unknown. Dev: 200-ft. adit, other adits. Ref: 13, p. 168.

Black Prince

Loc: Snoqualmie dist. Ore: Unknown. Ref: 63, p. 42.

Clara K. (11)

Loc: Cleopatra Basin, Miller R. dist. Ore: Unknown. Ref: 63, p. 38.

Commonwealth (17)

Loc: Sec. 26, (23-11E), Gold Cr. dist. Ore: Unknown. Ref: 58, p. 15.

Copper Bell (14)

Loc: NW¼ sec. 36, (24-8E), Snoqualmie dist. **Ore:** Unknown.
Deposit: Vein along contact between granite and gneiss, with 4 cross veins 1 to 4 ft. wide. **Ref:** 63, p. 42.

Double Stamp (2)

Loc: Parallel to Lone Star, Miller R. dist. **Ore:** Unknown.
Ref: 63, p. 38.

Galena Star

Loc: Snoqualmie dist. **Ore:** Unknown. **Ref:** 13, p. 168.

Hardy

(see Milton-Hardy)

Jones

(see Ascherfeld)

Jumbo (12)

Loc: Across river from Mt. Gem, Miller R. dist. **Ore:** Unknown. **Ref:** 63, p. 38.

McKinley (3)

Loc: Parallel to Lone Star, Miller R. dist. **Ore:** Unknown.
Ref: 63, p. 38.

Markley (4)

Loc: Extension of Lone Star, Miller R. dist. **Ore:** Unknown.
Ref: 63, p. 38.

Milton-Hardy (8)

Loc: Secs. 14 and 23, (25-10E), Miller R. dist. **Ore:** Unknown.
Ref: 158.

Mina (5)

Loc: Extension of Lone Star, Miller R. dist. **Ore:** Unknown.
Ref: 63, p. 38.

Orphan Girl (1)

Loc: Extension of Mono, Miller R. dist. **Ore:** Unknown. **Ref:** 63, p. 38.

Portland (13)

Loc: NW¼ sec. 20, (25-11E), near Francis Lk., Miller R. dist. **Ore:** Unknown. **Deposit:** Ore occurs as pockets, richest close to the walls but occurs also across the entire 18-ft. mineralized zone in granodiorite. **Ref:** 147, p. 183.

Red Butte (9)

Loc: Sec. 14, (25-10E), Buena Vista dist. **Prop:** 5 claims. **Owner:** Albert Pearson is trustee (1947). **Ore:** Unknown. **Ore min:** Pyrite. **Deposit:** Sparsely disseminated pyrite in quartzite at its contact with granite. **Ref:** 158.

Spider (6)

Loc: Extension of Lone Star, Miller R. dist. **Ore:** Unknown.
Ref: 63, p. 38.

Sunday Creek

(see Ascherfeld)

Tornado (10)

Loc: Extension of Coney Basin, Miller R. dist. **Ore:** Unknown. **Ref:** 63, p. 37.

United Cascade Mining Co. (16)

Loc: Sec. 1, (23-11E), and sec. 36, (24-11E), Miller R. dist. **Owner:** United Cascade Mining Co., Seattle, Wash. (1941). **Ore:** Unknown. **Ref:** 58, p. 70.

KITTITAS COUNTY**Bald Eagle**

Loc: Cle Elum dist. **Ore:** Unknown. **Ref:** 13, p. 165.

Billy Goat (1)

Loc: Swauk dist. **Owner:** State of Washington Mining Co. (1915). **Ore:** Unknown. **Ref:** 158.

Black Bear

Loc: Cle Elum dist. **Owner:** Dover Mining Co. (1914). **Ore:** Unknown. **Ref:** 105, no. 14, 1914, p. 592.

Copper Prince

Loc: Cle Elum dist. **Owner:** Gallagher Mining & Milling Co. (1907-1908). Gallagher Mining & Development Co. (1905). **Ore:** Unknown. **Ref:** 33, 1907, p. 617; 1908, pp. 706-707. 97, 1905, p. 336.

Cottontail

Loc: Kittitas County. **Ore:** Unknown. **Ref:** 158.

Davis

Loc: Cle Elum dist. **Ore:** Unknown. **Ref:** 13, p. 165.

Eureka

Loc: Cle Elum dist. **Ore:** Unknown. **Ref:** 13, p. 165.

Glover

Loc: Cle Elum dist. **Ore:** Unknown. **Ref:** 13, p. 134.

Green Bear

Loc: Cle Elum dist. **Owner:** Donald C. Smith (1917). **Ore:** Unknown. **Ref:** 158.

Ione Fraction

Loc: Kittitas County. **Ore:** Unknown. **Prod:** 1938. **Ref:** 97, 1939, p. 490.

Little New York

(see Phoenix and Little New York)

Lucky Boy (2)

Loc: Swauk dist. **Ore:** Unknown. **Ref:** 158.

Madeleine

Loc: Cle Elum dist. **Ore:** Unknown. **Ref:** 13, p. 135.

Merrick (3)

Loc: Swauk dist. **Ore:** Unknown. **Prod:** 1910. **Ref:** 158.

Mountain Sprite

Loc: Cle Elum dist. **Ore:** Unknown. **Ref:** 13, p. 133.

Once There

Loc: Cle Elum dist. **Ore:** Unknown. **Ref:** 13, p. 135.

Phoenix and Little New York (4)

Loc: Swauk dist. **Ore:** Unknown. **Prod:** 1912. **Ref:** 158.

Rainbow

Loc: Cle Elum dist. **Ore:** Unknown. **Ref:** 158.

Red Jacket (5)

Loc: Swauk dist. **Owner:** Washington & Iowa Mining Co. (1915). **Ore:** Unknown. **Ref:** 158.

Robert E. Lee

Loc: Cle Elum dist. **Ore:** Unknown. **Ref:** 13, p. 134.

Silver Belle No. 2

Loc: Cle Elum dist. **Ore:** Unknown. **Ref:** 13, p. 135.

Silver Dump

Loc: Cle Elum dist. **Ore:** Unknown. **Ref:** 13, p. 135.

Silver King

Loc: Cle Elum dist. **Ore:** Unknown. **Ref:** 13, p. 135.

Tacoma

Loc: Cle Elum dist. **Ore:** Unknown. **Ref:** 13, p. 135.

Taft (6)

Loc: Swauk dist. **Ore:** Unknown. **Ref:** 158.

Wolf (7)

Loc: Swauk dist. **Ore:** Unknown. **Prod:** 1912. **Ref:** 158.

LEWIS COUNTY**Peterson (1)**

Loc: Near center NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, (12-4E), about 1,200 ft. E. of the Spencer workings. **Elev:** 1,475 ft. **Access:** Trail. **Ore:** Unknown. **Ore min:** Pyrite. **Deposit:** Altered diabasic rock at the intersection of 2 faults contains disseminated pyrite but no cinnabar. **Dev:** 87-ft. adit, open cuts. **Ref:** 92-A, pp. 41-42.

MASON COUNTY**Darky (Keller) (1)**

Loc: Near mouth of Seven Stream on Skokomish R., in sec. 7 or 18, (24-5W). **Elev:** 1,600 ft. **Access:** Trail. **Ore:** Unknown. **Ore min:** Pyrite. **Gangue:** Argillite. **Deposit:** Sparsely disseminated pyrite in breccia zone 10 ft. wide in argillite near greenstone contact. **Dev:** Three adits, one more than 100 ft. long. **Ref:** 48-A, p. 41. 158.

Keller

(see Darky)

OKANOGAN COUNTY**Alyna**

Loc: Wannacut Lk. dist. **Ore:** Unknown. **Ref:** 13, p. 122.

Americanetta

Loc: Conconully dist. **Owner:** Viola Copper-Gold Mining Co. (1906-1918). **Ore:** Unknown. **Ref:** 33, 1907-1918. 105, no. 16, 1906, p. 469.

Ashton (9)

Loc: Sec. 22, (34-18E), near South Cr. **Elev:** 4,500 to 5,500 ft. **Access:** 4 mi. by trail from Twisp R. road. **Prop:** 5 patented claims. **Owner:** Bill Johnson, Twisp, Wash. (1946). **Ore:** Unknown. **Dev:** Several adits and open cuts. **Ref:** 158.

Aurora (Deer Creek, Lucky Strike) (21)

Loc: Near center T. 34 N., R. 31 E., near head of Deer Creek. **Prop:** 9 unpatented claims: Deer Creek Nos. 1 to 5, Lucky Strike Nos. 1 and 2, Great Northern No. 1, and Silver King. **Owner:** Aurora Mining Co., Inc. **Ore:** Unknown. **Dev:** 110-ft. adit, 65-ft. shaft. **Ref:** 158.

Banner

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 112.

Beggar's Choice (11)

Loc: Sec. 28, (40-25E), Mt. Chopaka area. **Prop:** 1 patented claim. **Owner:** Nighthawk Mines, Inc. (1938). **Ore:** Unknown. **Ref:** 158.

Ben Everett

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 130.

Bonanza

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 112.

Bonanza Chief (1)

Loc: SE $\frac{1}{4}$ sec. 13, (37-17E), on crest of the Cascade Divide about 1 $\frac{1}{2}$ mi. S. of Harts Pass. **Elev:** 6,000 ft. **Prop:** 1 unpatented claim. **Owner:** Charles Willman, Winthrop, Wash.

(1946). **Ore:** Unknown. **Deposit:** Irregular quartz veins along a fracture zone in sedimentary rocks. Veins generally less than 1 ft. thick, but one is 3 to 4 ft. thick. **Ref:** 158.

Bonanza King

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 95.

Boomer

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 112.

Buckhorn (13)

Loc: Sec. 29, (35-25E), W. of Salmon Cr., Conconully dist. **Prop:** Several claims. **Ore:** Unknown. **Gangue:** Quartz, gouge. **Deposit:** Shear zone in schist consists of black gouge and nodules of quartz. No metallic minerals apparent. **Dev:** 175-ft. adit. **Ref:** 12, p. 61. 75, p. 31.

Cape Nome (23)

Loc: Nespelem dist. **Ore:** Unknown. **Ref:** 158.

Central

Loc: Mazama dist. **Owner:** Oriental Mining Co. (1902). **Ore:** Unknown. **Ref:** 88, p. 35.

Clayton (4)

Loc: Sec. 8, (35-20E), Twisp dist. **Owner:** Abandoned. **Ore:** Unknown. **Dev:** 600 to 700 ft. of adit work and one shaft reported. **Ref:** 158.

Conconully Copper

Loc: Conconully dist. **Owner:** Conconully Copper Co. (1909). **Ore:** Unknown. **Ref:** 114, no. 5, 1909.

Deer Creek

(see Aurora)

Deerfly (15)

Loc: SW $\frac{1}{4}$ sec. 22, (40-30E), Myers Cr. dist. **Ore:** Unknown. **Ref:** 158.

Dewey (18)

Loc: NE $\frac{1}{4}$ sec. 26, (40-30E), Myers Cr. dist. **Ore:** Unknown. **Ref:** 158.

Dundee

Loc: Oroville dist. **Ore:** Unknown. **Ref:** 104, 5/15/36, p. 28.

Echo Gulch (6)

Loc: Sec. 16, (35-20E), on SW. side of Methow Valley about 10 mi. NW. of Winthrop. **Owner:** Abandoned (1946). **Ore:** Unknown. **Ref:** 158.

Glory

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 98.

Golden King

Loc: Palmer Mtn. dist. **Ore:** Unknown. **Ref:** 158.

Granite

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 97.

Gussie Everett

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 110.

Haggerty

Loc: Twisp dist. **Ore:** Unknown. **Ref:** 13, p. 113.

Humboldt

Loc: Twisp dist. **Ore:** Unknown. **Ref:** 158.

Ida May

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 98.

Indiana

Loc: Twisp dist. **Ore:** Unknown. **Prod:** 1937. **Ref:** 97, 1938, p. 459.

Kaywash (5)

Loc: Sec. 8 (?), (35-20E), on SW. side of Methow Valley about 11 mi. NW. of Winthrop. **Owner:** Abandoned (1946). **Ore:** Unknown. **Ref:** 158.

Keno (14)

Loc: Secs. 7 and 8, (40-30E). **Prop:** 7 patented claims. **Owner:** Mad River Mining Co. (1911-1915). **Ore:** Unknown. **Deposit:** Several strong quartz veins near contact of granite with schist, quartzite, greenstone, and some limestone. **Dev:** Various open cuts and shafts. **Ref:** 105, 1906, p. 391. 154, p. 51.

Keystone (19)

Loc: NW¼ sec. 35, (40-30E), Myers Cr. dist. **Owner:** Interstate Mining Corp., Columbus, Ohio (1903). **Ore:** Unknown. **Ref:** 100, 1903, p. 102.

Kismet

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 110.

La Plata

Loc: Twisp dist. **Ore:** Unknown. **Ref:** 13, p. 113.

Lucky Dog

Loc: Mazama dist. **Ore:** Unknown. **Prod:** 1910. **Ref:** 158.

Lucky Jim (7)

Loc: Sec. 16, (35-20E), on SW. side of Methow Valley. **Access:** About 10 mi. NW. of Winthrop. **Prop:** 8 patented claims. **Owner:** L. G. Halloway, Winthrop, Wash. (1946). **Ore:** Unknown. **Dev:** 1 adit 750 to 800 ft. long, 2 shorter adits, and 1 shaft are reported. **Ref:** 158.

Lucky Strike

(see Aurora)

Lucky Sunday (3)

Loc: SW¼ sec. 16, (36-20E), on Montana Cr. trail. **Access:** About 1 mi. from the Goat Cr. road. **Ore:** Unknown. **Deposit:** A 1-ft. quartz vein in diorite. **Dev:** 1 open cut. **Ref:** 158.

J. M. Lundy

Loc: Twisp dist. **Ore:** Unknown. **Ref:** 158.

Marvel

Loc: Twisp dist. **Ore:** Unknown. **Ref:** 158.

Mayflower

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 98.

Missing Link

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 86.

Modoc Chief

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 86.

Monto Oro

Loc: Palmer Mtn. dist. **Ore:** Unknown. **Prod:** 1938. **Ref:** 97, 1940, p. 478.

Mount Bay

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 98.

Mountain Lily

Loc: Near head of South Cr., in Gilbert area. **Access:** 4 to 8 mi. from Twisp R. road. **Owner:** Abandoned (1946). **Ore:** Unknown. **Ref:** 158.

Mug

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 97.

Northern Light

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 86.

Ocean Wave

Loc: Methow dist. **Ore:** Unknown. **Ref:** 58, p. 50.

Onward

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 97.

Original

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 86.

Pacific

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 97.

Pasco

Loc: Wannacut Lk. dist. **Ore:** Unknown. **Ref:** 13, p. 105.

Peak

Loc: Myers Cr. dist. **Ore:** Unknown. **Ref:** 158.

Philadelphia (20)

Loc: NW. cor. sec. 25, (40-30E), Myers Cr. dist. **Ore:** Unknown. **Ref:** 158.

Portland (8)

Loc: Sec. 11, (34-18E), Twisp dist. **Ore:** Unknown. **Ref:** 58, p. 55.

Rainbow (17)

Loc: NE¼ sec. 23, (40-30E), Myers Cr. dist. **Prop:** 3 claims. **Ore:** Unknown. **Gangue:** Garnet, epidote. **Deposit:** Garnet-epidote rock incorporated in quartzite and schist. **Dev:** 3 small shafts, and a 400-ft. adit from which a little drifting has been done. **Ref:** 154, p. 48.

Rattler

Loc: Myers Cr. dist. **Ore:** Unknown. **Ref:** 158.

Roseman

Loc: Twisp dist. **Ore:** Unknown. **Ref:** 13, p. 113.

Sailor Boy (24)

Loc: Near NE. cor. sec. 28, (31-30E), Nespelem dist. **Owner:** William Bernard and E. Christianson (1939). **Ore:** Unknown. **Deposit:** The adit, in granite, exposes no ore minerals. **Dev:** 240-ft. adit. **Ref:** 158.

Second Thought

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 86.

Silver Horse

Loc: Wauconda dist. **Owner:** Wm. H. Parr (1935). **Ore:** Unknown. **Ref:** 104, 4/30/35, p. 29.

Silver Star (12)

Loc: Near SE. cor. sec. 33, (38-26E). **Owner:** Abandoned (1939). **Ore:** Unknown. **Ore min:** Pyrite. **Deposit:** Discontinuous quartz veins from less than an in. to 3 ft. wide. Veins followed by the adit pinch out in from 30 to 50 ft. Country rock is slate and quartzite. **Dev:** 1,100-ft. adit. **Ref:** 158.

Similkameen (10)

Loc: Sec. 3, (40-26E), Oroville dist. **Owner:** Similkameen Custom Mining & Smelting Co. (1939). **Ore:** Unknown. **Ref:** 108, 7/39.

Snowflake

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 97.

Sonoma

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 112.

Sunflower (22)

Loc: Sec. 28, (32-30E), Nespelem dist. **Owner:** C. H. Massar. **Ore:** Unknown. **Ref:** 158.

Telephone

Loc: Conconully dist. **Ore:** Unknown. **Ref:** 13, p. 97.

Thompson

Loc: Conconully dist. Ore: Unknown. Ref: 13, p. 97.

U. S. Treasure (16)

Loc: NW¼ sec. 20, (40-30E), Myers Cr. dist. Ore: Unknown. Ref: 158.

Union

Loc: Conconully dist. Ore: Unknown. Ref: 13, p. 112.

Weymyer (2)

Loc: Sec. 19 (?), (36-20E), near Goat Cr. road. Access: About 4 mi. from Mazama on Goat Cr. road. Owner: S. W. Shafer, Winthrop, and Tom C. Luke, Mazama, Wash. (1946). Ore: Unknown. Ref: 158.

Wheel of Fortune

Loc: Conconully dist. Ore: Unknown. Ref: 13, p. 86.

Wide West

Loc: Wannacut Lk. dist. Ore: Unknown. Ref: 13, p. 105.

Yellow Jacket

Loc: Conconully dist. Ore: Unknown. Ref: 13, p. 111.

PEND OREILLE COUNTY**Bettencourt**

Loc: Metaline dist. Ore: Unknown. Ref: 158.

Bonnie Blue Belle

Loc: Metaline dist. Ore: Unknown. Ref: 13, p. 156.

Brown (9)

Loc: Sec. 29, (30-43E), Newport dist. Prop: Several unpatented claims. Owner: Mr. Brown and associates (1941). Ore: Unknown. Deposit: 2 outcrops of 18-in. quartz veins appear to be barren of mineralization. Dev: Adit and shaft. Ref: 29, p. 74.

Emerald (4)

Loc: SW¼ sec. 15, (39-43E), Metaline dist. Ore: Unknown. Ref: 158.

Josie (2)

Loc: Sec. 11, (40-44E), Metaline dist. Prop: 3 unpatented claims. Abandoned (1941). Ore: Unknown. Dev: Open cuts. Ref: 29, p. 58.

Log Cabin (7)

Loc: NE¼ sec. 29, (38-43E), Metaline dist. Ore: Unknown. Ref: 114, no. 5, 1907, p. 54.

Malden (5)

Loc: SW¼ sec. 20, (39-43E), Metaline dist. Owner: Malden M. M. and M. Co. (1908). Ore: Unknown. Ref: 116, no. 6, 1908, p. 139. 158.

Opal

Loc: Metaline dist. Ore: Unknown. Ref: 158.

Pine Hill (1)

Loc: Sec. 1, (40-43E), Metaline dist. Prop: 6 unpatented claims. Owner: Abandoned (1941). Ore: Unknown. Deposit: Slight mineralization. Ref: 29, p. 50.

Rectangle

Loc: Pend Oreille County. Owner: Mt. View Mining Co. (1915). Ore: Unknown. Ref: 158.

Storm (8)

Loc: Sec. 28, (33-43E), Newport dist. Prop: 2 unpatented claims. Owner: Abandoned (1941). Ore: Unknown. Deposit:

Slight mineral stains cover a wide area. Dev: Small open cuts. Ref: 29, p. 74.

Wall Street (6)

Loc: SE¼ sec. 4, (38-43E), Metaline dist. Ore: Unknown. Ref: 114, no. 5, 1909, p. 54.

Wide West (3)

Loc: SW¼ sec. 27, (40-43E), Metaline dist. Ore: Unknown. Ref: 114, no. 5, 1909, p. 54.

PIERCE COUNTY**Apex (1)**

Loc: In basin on S. end of Crystal Mtn., approx. in sec. 25, (17-10E). Owner: Apex Mining Co., Harry Poole, H. F. Smith, T. H. Smith, and Jack Brown (1945). Ore: Unknown. Ore min: Pyrite. Deposit: Mineralized volcanic rock. Improv: Cabin (1945). Ref: 158.

Big Load

Loc: Summit dist. Ore: Unknown. Ref: 158.

Clipper

Loc: Carbon R. dist. Ore: Unknown. Ref: 88, p. 91.

Little Gem

Loc: Pierce County. Ore: Unknown. Ref: 63, p. 45.

Summit

Loc: Summit dist. Ore: Unknown. Ref: 158.

Vermont

Loc: Summit dist. Prop: 6 claims: Vermont Nos. 1-6. Ore: Unknown. Ref: 158.

SKAGIT COUNTY**Baltimore**

Loc: Cascade dist. Ore: Unknown. Ref: 13, p. 174.

Black Stallion (1)

Loc: SE¼ sec. 24, (35-13E), at SW. edge of Boston Basin. Access: Trail. Prop: 1 claim. Ore: Unknown. Ore min: Pyrite. Deposit: Mineralized diabase dike in diorite gneiss. Dev: Short adit. Ref: 158.

Buffalo

Loc: Cascade dist. Ore: Unknown. Ref: 13, p. 173.

Cincinnati

Loc: Cascade dist. Ore: Unknown. Ref: 13, p. 173.

Hartay (2)

Loc: Head of Thunder Cr. Basin. Ore: Unknown. Ref: 63, p. 59.

Helena Butte

Loc: Cascade dist. Ore: Unknown. Ref: 13, p. 140.

Homestake

Loc: Cascade dist. Ore: Unknown. Ref: 63, p. 56.

Jumbo

Loc: Near Granite property, Cascade dist. Ore: Unknown. Ref: 63, p. 56.

King Solomon

Loc: Cascade dist. Ore: Unknown. Ref: 13, p. 142.

Logan

Loc: Skagit County. Ore: Unknown. Ref: 119, no. 2, 1912, p. 1.

Montreal

Loc: Cascade dist. **Ore:** Unknown. **Ref:** 13, p. 140.

New York

Loc: Cascade dist. **Ore:** Unknown. **Ref:** 13, p. 140.

SKAMANIA COUNTY**Big Blue (5)**

Loc: Secs. 21 and 28, (10-6E). **Owner:** Ralph Cutler, Portland, Oreg. (1937). **Ore:** Unknown. **Ref:** 158.

Blue Bird

Loc: Washougal dist. **Ore:** Unknown. **Ref:** 158.

Bonanza (1)

Loc: NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 17, (9-5E), Mt. St. Helens dist. **Access:** $\frac{1}{4}$ mi. by trail N. from main highway 3 mi. W. of Spirit Lk. **Ore:** Unknown. **Gangue:** Calcite, breccia. **Deposit:** Fault zone varies from a thin seam to 2 ft. in width. No mineralization observed. Country rock is andesite. **Dev:** 200-ft. drift. **Ref:** 158.

Box Canyon

Loc: Sec. 16, (10-6E), Mt. St. Helens dist. **Ore:** Unknown. **Ref:** 158.

Chicago and Golden Crown (6)

Loc: SW $\frac{1}{4}$ sec. 11, (10-6E), Mt. St. Helens dist. **Ore:** Unknown. **Ref:** 158.

Copper King

Loc: Washougal dist. **Owner:** Washougal Gold & Copper Mining Co. (1916). **Ore:** Unknown. **Ref:** 105, 1916, pp. 744-745.

Denmark (3)

Loc: SW $\frac{1}{4}$ sec. 31, (10-6E), Mt. St. Helens dist. **Owner:** Mt. St. Helens Consolidated Mining Co. (1907-1926). **Ore:** Unknown. **Ref:** 33, 1907, p. 800; 1908, p. 952. 98, 1920-1926.

Dixie

Loc: Washougal dist. **Owner:** Washougal Gold & Copper Mining Co. (1916). **Ore:** Unknown. **Ref:** 105, 1916, pp. 744-745.

Golden Crown

(see Chicago and Golden Crown)

Hercules (2)

Loc: SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, (9-5E), Mt. St. Helens dist. **Elev:** 3,500 ft. **Access:** 1 mi. by road and trail from Spirit Lk. Ranger Station. **Ore:** Unknown. **Ore min:** Pyrite. **Deposit:** Disseminated pyrite in felsite, andesite, and basalt. **Dev:** 185-ft. adit. **Ref:** 158.

Tennessee (4)

Loc: Across Green R. from Polar Star mine, probably in sec. 18, (10-6E), Mt. St. Helens dist. **Access:** Trail. **Ore:** Unknown. **Dev:** 105-ft. adit. **Ref:** 158.

Washington

Loc: Near Norway Pass, Mt. St. Helens dist. **Ore:** Unknown. **Deposit:** Said to be a well-defined vein. **Dev:** 50-ft. adit. **Ref:** 88, p. 97.

Williams (7)

Loc: W $\frac{1}{2}$ NW $\frac{1}{4}$ sec. 25, (8-9E), Mt. St. Helens dist. **Ore:** Unknown. **Deposit:** Adit in porphyritic andesite and volcanic breccia. No visible ore minerals. **Dev:** 500- to 600-ft. adit. **Ref:** 158.

SNOHOMISH COUNTY**Alki and Ellen (22)**

Loc: Sec. 31, (29-11E), Silver Cr. dist. **Ore:** Unknown. **Ore min:** Pyrite. **Deposit:** Vein 8 to 10 ft. wide. **Dev:** 60-ft. cross-cut. **Ref:** 14, p. 29. 63, p. 30.

Arkansas Traveler (23)

Loc: On E. side of Silver Cr. near Jumbo prospect. **Ore:** Unknown. **Ref:** 13, p. 204. 14, p. 29.

Baby Lode (4)

Loc: Near Arlington prospect, Silverton dist. **Ore:** Unknown. **Deposit:** 6-ft. vein parallel with the Arlington vein and carrying some ore. **Dev:** Short adit. **Ref:** 14, p. 40. 63, p. 22.

Beeman

Loc: Darrington dist. **Ore:** Unknown. **Ref:** 104, 2/28/37, p. 28.

Bengal (15)

Loc: Sec. 13, (29-11E), Monte Cristo dist. **Ore:** Unknown. **Ref:** 158.

Beta (9)

Loc: Sec. 31, (30-10E). **Prop:** 1 patented claim. **Owner:** Merchants Loan & Trust Co., Chicago, Ill. (1899). **Ore:** Unknown. **Ref:** 158.

Black Diamond

Loc: Silver Cr. dist. **Ore:** Unknown. **Dev:** Small amount. **Ref:** 13, p. 199. 14, p. 29.

Black Hawk (5)

Loc: Sec. 11, (30-9E), Stilaguamish dist. **Owner:** D. A. Allen, Everett, Wash. **Ore:** Unknown. **Ref:** 158.

Blackjack

(see Waterfall and Blackjack)

Boulder (10)

Loc: Secs. 2 and 11, (29-9E). **Prop:** 5 patented claims. **Owner:** Snohomish County. **Ore:** Unknown. **Ref:** 158.

Buncombe (30)

Loc: Secs. 2 and 11, (27-8E). **Prop:** 1 patented claim. **Owner:** Snohomish County. **Ore:** Unknown. **Ref:** 158.

Bunker Hill (3)

Loc: Sec. 7, (30-10E), Stilaguamish dist. **Owner:** David A. Alden and D. A. Ford, Everett, Wash. **Ore:** Unknown. **Ref:** 63, p. 21. 158.

Butte (24)

Loc: Sec. 32, (29-11E), Silver Cr. dist. **Owner:** Florence Rae Mining Co. **Ore:** Unknown. **Ref:** 158.

Cariboo

Loc: Silver Cr. dist. **Prop:** 1 patented claim. **Owner:** Mrs. Anna Antonio and Mrs. Josephine Lombardine, Seattle, Wash. (1909). **Ore:** Unknown. **Ref:** 158.

Cedar (11)

Loc: Sec. 5, (29-10E), Stilaguamish dist. **Prop:** 1 patented claim. **Owner:** Merchants Loan & Trust Co., Chicago, Ill. (1899). **Ore:** Unknown. **Ref:** 158.

Central Fraction

Loc: Monte Cristo dist. **Ore:** Unknown. **Ref:** 13, p. 188. 14, p. 22.

Clara (16)

Loc: Sec. 23, (29-11E), Monte Cristo dist. **Owner:** Ethel M. Birney, Everett, Wash. **Ore:** Unknown. **Ref:** 158.

Climax

Loc: Monte Cristo dist. Ore: Unknown. Ref: 14, p. 23.

Climax and Knoxville

Loc: On E. side of Deer Cr., Silverton dist. Ore: Unknown. Ref: 14, p. 42. 63, p. 21.

Columbus (12)

Loc: Sec. 33, (30-10E), on the S. side of Hall Peak, Sultan dist. Prop: 4 claims. Ore: Unknown. Dev: Short adit. Ref: 14, p. 47. 63, p. 24.

Columbus (33)

Loc: Sec. 34, (28-10E), Monte Cristo dist. Prop: 1 patented claim. Owner: Warren Copper Co., Seattle, Wash. Ore: Unknown. Ref: 158.

Combination (29)

Loc: Sec. 33, (29-11E), Silver Cr. dist. Ore: Unknown. Deposit: 2-ft. vein with 1 ft. of ore. Ref: 14, p. 30. 63, p. 29.

Concord (35)

Loc: Sec. 12, (27-11E), on Beckler R. Prop: 1 patented claim. Owner: National Bank of Commerce, Seattle, Wash. Ore: Unknown. Ref: 158.

Congress (19)

Loc: Sec. 22, (29-11E), Monte Cristo dist. Prop: 1 patented claim. Owner: Florence Rae Mining Co., Seattle, Wash. Ore: Unknown. Ref: 158.

Copper Bullion (34)

Loc: Sec. 7, (27-11E), Index dist. Owner: G. W. Adamson, Everett, Wash. Ore: Unknown. Ref: 158.

Copper Matte (31)

Loc: Secs. 2 and 11, (27-9E). Prop: 1 patented claim. Owner: Snohomish County. Ore: Unknown. Ref: 158.

Dena

Loc: Darrington dist. Ore: Unknown. Ref: 104, 2/28/37, p. 28.

Doubtful (6)

Loc: About 2 mi. NW. of Silverton, adjacent to the Baby Lode prospect. Ore: Unknown. Deposit: Extension of the Baby Lode vein. Ref: 14, p. 43. 63, p. 22.

Dutchman

Loc: T. 29 N., R. 11 E., on Silver Tip Mtn., Silver Cr. dist. Ore: Unknown. Deposit: 4- to 5-ft. vein of ore. Dev: 20-ft. adit. Ref: 14, p. 31. 63, p. 28.

Echo (32)

Loc: Secs. 2 and 11, (27-9E). Prop: 1 patented claim. Owner: Snohomish County. Ore: Unknown. Ref: 158.

Ellen

(see Alki and Ellen)

Emma

Loc: Silver Cr. dist. Ore: Unknown. Ref: 13, p. 200.

Even Up

Loc: Silver Cr. dist. Ore: Unknown. Dev: Small amount. Ref: 13, p. 158. 14, p. 31.

Fanny

Loc: Silver Cr. dist. Ore: Unknown. Deposit: 10-ft. shear zone with 22 in. of ore. Assays: \$25 per ton. Ref: 14, p. 32.

Forty-Seven

Loc: Index dist. Ore: Unknown. Ref: 88, p. 82.

Frater

Loc: Silver Cr. dist. Ore: Unknown. Dev: Small amount. Ref: 14, p. 32.

G. H. and L.

Loc: Darrington dist. Ore: Unknown. Ref: 104, 2/28/37, p. 28.

Galena Copper

Loc: Index dist. Ore: Unknown. Ref: 114, no. 4, 1907, p. 55.

Glacier

Loc: On W. side of '76 Basin, Monte Cristo dist. Ore: Unknown. Ref: 14, p. 23.

Great Republic

Loc: Silver Cr. dist. Ore: Unknown. Deposit: 9 ft. of concentrating ore. Ref: 13, p. 163. 14, p. 32.

Gustafson

Loc: Darrington dist. Ore: Unknown. Ref: 104, 2/28/37, p. 28.

Homestake

Loc: Monte Cristo dist. Ore: Unknown. Ref: 14, p. 23.

Hunter

Loc: Near Goat Lk., Monte Cristo dist. Ore: Unknown. Deposit: Small paystreaks of ore. Ref: 14, p. 23. 63, p. 16.

Hydra

Loc: Monte Cristo dist. Ore: Unknown. Ref: 14, p. 23.

Ingersoll

Loc: Silver Cr. dist. Ore: Unknown. Dev: Small amount. Ref: 14, p. 33.

Justice

Loc: Darrington dist. Owner: Burns Mining Co. (1907-1918). Ore: Unknown. Ref: 33, 1907, p. 400. 98, 1918, p. 62.

Knoxville

(see Climax and Knoxville)

Laborum

Loc: Monte Cristo dist. Ore: Unknown. Ref: 13, p. 150. 14, p. 24.

Lone Jack

Loc: Silverton dist. Ore: Unknown. Ref: 158.

Louise

(see Mayflower and Louise)

Lucky Chance

Loc: Silverton dist. Ore: Unknown. Ref: 158.

Mammoth

Loc: Index dist. Ore: Unknown. Ref: 88, p. 82.

Marine (25)

Loc: On E. side of Silver Cr. near Jumbo property. Ore: Unknown. Ref: 14, p. 34.

Mayflower and Louise

Loc: On the Four Aces vein in Silverton dist. Ore: Unknown. Ref: 14, p. 44.

Moss Rose

Loc: Silverton dist. Ore: Unknown. Ref: 158.

Navajo

Loc: ½ mi. NE. of Goat Lk., Monte Cristo dist. **Prop:** 3 claims. **Ore:** Unknown. **Deposit:** 1 mineralized fracture zone with good ore. **Ref:** 14, p. 24, 63, p. 16.

Nibus

Loc: Monte Cristo dist. **Ore:** Unknown. **Ref:** 14, p. 24.

Noaday

Loc: Darrington dist. **Ore:** Unknown. **Ref:** 104, 2/28/37, p. 28.

Non Pareil (2)

Loc: Near Helena mine N. of Deer Lk., Silverton dist. **Prop:** 2 claims. **Ore:** Unknown. **Deposit:** 8- to 12-ft. vein. **Ref:** 14, p. 45. 63, p. 20.

Old Missouri (26)

Loc: On E. side of Silver Cr. near Jumbo prospect. **Ore:** Unknown. **Ref:** 14, p. 36.

Pauline (20)

Loc: Sec. 16, (29-11E), on N. side of valley on E. side of Purcell Cr. **Elev:** 2,500 ft. **Prop:** 1 claim. **Owner:** Pauline Elster (1942). **Ore:** Unknown. **Ore min:** Pyrite. **Gangue:** Quartz, calcite. **Deposit:** Fracture zone about 3 ft. wide is weakly mineralized. Large area of oxidized silica-pyrite ore higher up the mountain. **Dev:** 200-ft. adit. **Ref:** 158.

Phoenix (21)

Loc: On E. side of the Rainy property, Monte Cristo dist. **Ore:** Unknown. **Dev:** Small amount. **Ref:** 14, p. 24.

Pinnacle

Loc: Monte Cristo dist. **Ore:** Unknown. **Ref:** 13, p. 149.

Pomona

Loc: Snohomish County. **Owner:** Miners Smelting & Refining Co. (1934). **Ore:** Unknown. **Ref:** 104, 4/30/34, pp. 21-22.

Port Gardner

Loc: Silver Cr. dist. **Ore:** Unknown. **Dev:** Small amount. **Ref:** 13, p. 158. 14, p. 36.

Ranger

Loc: Monte Cristo dist. **Ore:** Unknown. **Ref:** 13, p. 149.

Russia

Loc: Monte Cristo dist. **Ore:** Unknown. **Ref:** 14, p. 25.

Sacramento (14)

Loc: Adjacent to the Sunset property 1 mi. S. of Goat Lk., Monte Cristo dist. **Ore:** Unknown. **Ref:** 14, p. 25. 63, p. 16.

San Francisco (17)

Loc: Sec. 13, (29-11E), 1 mi. S. of Goat Lk., Monte Cristo dist. **Ore:** Unknown. **Deposit:** 10- to 12-ft. mineralized fracture zone. **Dev:** Short adit. **Ref:** 14, p. 25. 63, p. 16.

Saturday

Loc: Monte Cristo dist. **Ore:** Unknown. **Ref:** 14, p. 25.

Scotch Lassie Jean (27)

Loc: On E. side of Silver Cr. near the Jumbo property. **Ore:** Unknown. **Ref:** 14, p. 36.

Seventy-Four

Loc: Monte Cristo dist. **Ore:** Unknown. **Ref:** 13, p. 150.

Shamrock Copper

Loc: Sultan dist. **Owner:** Blackman Bros., Inc. (1915). **Ore:** Unknown. **Ref:** 158.

Silver Shield

Loc: Silver Cr. dist. **Ore:** Unknown. **Ref:** 13, p. 161.

Stockton

Loc: Near the mouth of Deer Cr., Silverton dist. **Prop:** 4 claims. **Ore:** Unknown. **Deposit:** Probably an extension of the Bonanza Queen vein. **Dev:** Several adits, one 31 ft. long. **Ref:** 14, p. 45. 63, p. 20.

Stratus

Loc: Monte Cristo dist. **Ore:** Unknown. **Ref:** 14, p. 25.

Summer Coon (8)

Loc: Sec. 20, (30-10E), near Cleveland prospect, Silverton dist. **Ore:** Unknown. **Deposit:** Probably an extension of the Cleveland vein. **Ref:** 14, p. 45. 63, p. 18.

Superior

Loc: Silver Cr. dist. **Ore:** Unknown. **Ore min:** Pyrite. **Deposit:** 10-ft. shear zone. **Ref:** 14, p. 37.

Thistle

Loc: Silverton dist. **Ore:** Unknown. **Ref:** 158.

Three Sisters (7)

Loc: Sec. 2, (30-9E), just across the divide between Martin and Deer Creeks, Silverton dist. **Prop:** 4 claims. **Ore:** Unknown. **Deposit:** 18 in. of ore. **Dev:** 20-ft. adit. **Ref:** 14, p. 45. 63, p. 20.

Trident

Loc: Index dist. **Ore:** Unknown. **Ref:** 88, p. 82.

Tuscolusa

Loc: Monte Cristo dist. **Ore:** Unknown. **Ref:** 13, p. 150. 14, p. 26.

Uncle Sam

Loc: On W. side of '76 Basin, Monte Cristo dist. **Ore:** Unknown. **Ref:** 14, p. 26.

Washington

Loc: Monte Cristo dist. **Ore:** Unknown. **Ref:** 14, p. 26.

Waterfall and Blackjack (18)

Loc: Sec. 13, (29-11E), 1 mi. S. of Goat Lk., Monte Cristo dist. **Ore:** Unknown. **Deposit:** Two 5-ft. fracture zones carrying from 1½ to 4 ft. of ore. **Ref:** 14, p. 26. 63, p. 16.

Welcome Home (13)

Loc: Sec. 12, (29-10E), at head of Stilaguamish R. **Owner:** Homer Manley. **Ore:** Unknown. **Ore min:** Minor sulfides. **Deposit:** Country rock is argillite and conglomerate. A poor showing. **Dev:** Shaft. **Ref:** 158.

West Seattle

Loc: Monte Cristo dist. **Ore:** Unknown. **Ref:** 14, p. 26.

Wildcat (28)

Loc: Sec. 25, (29-11E), Monte Cristo dist. **Ore:** Unknown. **Ref:** 14, p. 26.

Witcher (1)

Loc: NE¼ sec. 29, (32-9E), at foot of White Horse Mtn., Darrington dist. **Owner:** D. A. Witcher, Darrington, Wash. **Ore:** Unknown. **Ore min:** Pyrite. **Deposit:** Small quartz veinlets in argillite. **Dev:** 3 adits: 35 ft., 25 ft., and 8 ft. long. **Ref:** 14, p. 11.

STEVENS COUNTY**Alberta**

Loc: Chewelah dist. **Owner:** Chewelah Copper Mining and Smelting Co. (1907). **Ore:** Unknown. **Ref:** 98, 1907, p. 476. 116, no. 10, 1907, p. 18.

Alice Mae (11)

Loc: SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 35, (39-39E), about 1,000 ft. E. of the Wall Street property, Northport dist. **Ore:** Unknown. **One min:** Pyrite, pyrrhotite. **Deposit:** Quartz vein in argillite contains some pyrite and pyrrhotite. **Dev:** Inaccessible shaft. **Ref:** 158.

Big Bear

Loc: Orient dist. **Ore:** Unknown. **Prod:** 1915. **Ref:** 158.

Bromide Mountain

Loc: Northport dist. **Owner:** Bromide Mountain Mining Co. (1930-1936). **Ore:** Unknown. **Ref:** 104, 4/15/30, p. 27; 4/15/36, p. 27.

Brown Bear (19)

Loc: Sec. 3, (30-38E), Cedar Canyon dist. **Ore:** Unknown. **Ref:** 106, 10/1/31, p. 14.

Buck Canyon (14)

Loc: SW $\frac{1}{4}$ sec. 19, (32-40E), in Buck Canyon, $\frac{3}{4}$ mi. NW. of the Imperial Copper property. **Access:** $\frac{1}{4}$ mi. from the end of Buck Canyon road. **Ore:** Unknown. **Deposit:** Both workings in slate and phyllite. A few quartz-calcite stringers but no ore minerals. **Dev:** 235-ft. adit and 130-ft. adit. **Ref:** 158.

Bulldog

Loc: Chewelah dist. **Ore:** Unknown. **Ref:** 105, 4/92, p. 299.

Butte

(see Chief and Butte)

Butte and Washington

Loc: Orient dist. **Ore:** Unknown. **Ref:** 114, no. 5, 1909, p. 62.

C & A

Loc: Colville area. **Owner:** Bruce Creek Mines Co. (1918-1922). **Ore:** Unknown. **Ref:** 98, 1922, p. 1636; 1925, p. 1807. 112, p. 171.

Calumet and Hecla (12)

Loc: NW. cor. sec. 29, (38-41E), Northport dist. **Owner:** Aladdin Mines Co. (1933). National Mining Co. (1908-1918). **Ore:** Unknown. **Ref:** 116, no. 2, 1908, p. 26.

Carr

Loc: Chewelah dist. **Ore:** Unknown. **Ref:** 104, 1/15/36, p. 26.

Chicamun

Loc: Orient dist. **Owner:** Chicago Gold Mining & Milling Co. (1908-1918). **Ore:** Unknown. **Ref:** 112, p. 191. 114, no. 5, 1909, p. 59.

Chief and Butte (4)

Loc: Sec. 16, (39-37E), Orient dist. **Ore:** Unknown. **Ref:** 114, no. 5, 1909, p. 60. 158.

Coffin

Loc: Northport dist. **Owner:** West Kootenay Mining Co. (1930). **Ore:** Unknown. **Ref:** 106, 1/2/30; 3/5/31, p. 19; 4/2/31.

Commonwealth

Loc: Orient dist. **Owner:** Pierre Lake Gold & Copper Co. (1915). **Ore:** Unknown. **Ref:** 158.

Cultis

Loc: Orient dist. **Owner:** Bonus Gold Mining & Milling Co. (1915). **Ore:** Unknown. **Ref:** 158.

Dandy

Loc: Bossburg dist. **Ore:** Unknown. **Ref:** 13, p. 153.

David Harum (5)

Loc: Sec. 19, (39-38E). **Ore:** Unknown. **Ref:** 164, p. 150.

Drake

Loc: Chewelah dist. **Owner:** Wizard Mining Co. (1908-1918). **Ore:** Unknown. **Ref:** 98, 1918, p. 148. 116, no. 6, 1908, p. 123.

Edwin Seaman (15)

Loc: Sec. 31, (32-40E), Springdale area. **Owner:** Western Premier Mining Co. (1929-1930). **Ore:** Unknown. **Ref:** 106, 10/1/29; 4/17/30.

Effie R.

Loc: Orient dist. **Owner:** Bonus Mining & Milling Co. (1915). **Ore:** Unknown. **Ref:** 158.

Fool's Luck

Loc: Northport dist. **Ore:** Unknown. **Ref:** 106, 7/16/31, p. 17.

Fraction

Loc: Bossburg dist. **Ore:** Unknown. **Ref:** 13, p. 127.

Hartbauer (9)

Loc: Sec. 36, (40-41E), Northport dist. **Access:** Near road. **Prop:** 40-acre lease of State land. **Owner:** Carl Hartbauer, lessee (1941). **Ore:** Unknown. **Deposit:** Mineralized fracture zone has been traced 150 ft. on the surface. **Dev:** 35 ft. of work in 2 shafts; also some open cuts. **Ref:** 30, p. 102.

Hecla

(see Calumet and Hecla)

Iron Chief

Loc: Cedar Canyon dist. **Ore:** Unknown. **Ref:** 158.

Last Chance

Loc: Marcus dist. **Ore:** Unknown. **Ref:** 158.

Lion

Loc: Bossburg area. **Ore:** Unknown. **Ref:** 158.

Log Cabin (6)

Loc: S. of Blue Bird property, sec. 19, (39-38E). **Ore:** Unknown. **Ref:** 164, p. 150.

Lost Boy

Loc: Colville dist. **Ore:** Unknown. **Ref:** 158.

Lucky Bill

Loc: Northport dist. **Ore:** Unknown. **Ref:** 105, 2/16/07, p. 201.

Lucky Red

Loc: Orient dist. **Owner:** Bonus Gold Mining & Milling Co. (1915). **Ore:** Unknown. **Ref:** 158.

Lucky Strike (10)

Loc: Sec. 18, (39-42E), Northport dist. **Ore:** Unknown. **Prod:** 1934. **Ref:** 97, 1935, p. 355.

Mammoth

Loc: Marcus area. **Ore:** Unknown. **Ref:** 158.

Minnehaha

Loc: Bossburg dist. **Ore:** Unknown. **Prod:** 2 tons (1924). **Ref:** 106, no. 18, 1924, p. 8.

Monohan (7)

Loc: SW $\frac{1}{4}$ sec. 18, (32-40E), at head of Buck Canyon. **Elev:** 2,820 ft. **Access:** Road near the property. **Prop:** Several claims. **Owner:** Charles Gilbert (1941). **Ore:** Unknown. **Deposit:** Country rock is quartzite, argillite, and limestone. No vein or ore exposed. **Dev:** 885-ft. adit, 250-ft. adit. **Ref:** 30, p. 45. 164, p. 187.

Old National

Loc: Cedar Canyon dist. **Owner:** Old National Mining Co. (1915). **Ore:** Unknown. **Ref:** 158.

Princess Pat (3)

Loc: Sec. 7, (39-37E), joins First Thought mine on the N., Orient dist. **Access:** ¼ mi. from road. **Prop:** 3 unpatented claims. **Owner:** Mrs. Terry, Orient, Wash. (1941). **Ore:** Unknown. **Deposit:** No sign of ore. Work was done in hope of uncovering an extension of the First Thought ore. **Dev:** 500 ft. of work in 5 adits and a 100-ft. shaft. **Ref:** 30, p. 125.

Prudential

Loc: Bossburg dist. **Ore:** Unknown. **Ref:** 158.

Ranger

Loc: Bossburg dist. **Ore:** Unknown. **Ref:** 13, p. 127.

San Jose

Loc: Orient dist. **Ore:** Unknown. **Ref:** 158.

Santiago

Loc: Kettle Falls dist. **Owner:** Mingo Mining Co. (1915). **Ore:** Unknown. **Ref:** 158.

Skookum (16)

Loc: Sec. 31, (32-40E), Valley dist. **Owner:** Western Premier Mining Co. (1929-1930). **Ore:** Unknown. **Ref:** 106, 10/1/29; 4/17/30.

Strobeck (13)

Loc: Sec. 30, (33-41E), Chewelah dist. **Ore:** Unknown. **Gangue:** Quartz, calcite. **Deposit:** Wall rock is schist, limy shales, and a kersantite dike. **Ref:** 7, pp. 104-105.

Tenderfoot (1)

Loc: Sec. 15, (40-37E), Orient dist. **Owner:** P. W. O'Brien (1909). **Ore:** Unknown. **Ref:** 114, no. 5, 1909, p. 60.

Treadwell (2)

Loc: Orient dist., E. of Yellow Jacket property. **Prop:** 2 claims: Treadwell Nos. 1 and 2. **Ore:** Unknown. **Ore min:** Pyrite. **Gangue:** Calcite. **Deposit:** Fracture zone in limestone is brecciated, silicified, and slightly mineralized. **Dev:** 18-ft. shaft, open cuts. **Ref:** 164, p. 282.

Uncle Sam (17)

Loc: Sec. 29, (32-40E), in Buck Canyon. **Prop:** Deeded timber land. **Owner:** Messrs. Kulzer and Woodbury, Valley, Wash. (1941). **Ore:** Unknown. **Ore min:** Pyrite. **Deposit:** Scattered cubes of pyrite in argillite. No vein or ore exposed. **Dev:** 50-ft. adit. **Ref:** 30, p. 45. 164, p. 188.

Union (8)

Loc: Sec. 3, (40-39E), Northport dist. **Ore:** Unknown. **Ref:** 158.

Velvet

Loc: Northport dist. **Ore:** Unknown. **Prod:** Shipped conc. to smelter in 1939. **Ref:** 108, 7/39, p. 22.

Washington (18)

Loc: Sec. 29, (32-40E), Chewelah dist. **Elev:** 2,350 ft. **Ore:** Unknown. **Deposit:** A barren 6-in. quartz vein parallel to laminations in argillite. No ore exposed. **Dev:** 415 ft. of adit. **Ref:** 164, pp. 187-188.

Washington (Butte and Washington)
(see Butte and Washington)**Wizard**

Loc: Chewelah dist. **Ore:** Unknown. **Ref:** 114, no. 5, 1909 p. 58.

WHATCOM COUNTY**Blue Hen**

Loc: Slate Cr. dist. **Owner:** Cascadian Engineering Corp. (1932). **Ore:** Unknown. **Ref:** 106, 7/7/32, p. 14.

Chandalar (2)

Loc: At junction of Dickey and Slate Creeks. **Access:** 5 mi. W. of Harts Pass by road. **Prop:** 1 claim. **Owner:** Messrs. Charles Willman and Kenney (1943). **Ore:** Unknown. **Deposit:** Hydrothermal alteration along a joint in arkosic sandstone. Band of alteration only 1 in. wide and contains no ore minerals. **Ref:** 158.

Clear Water

Loc: Mt. Baker dist. **Prop:** 1 patented claim. **Ore:** Unknown. **Ref:** 158.

Copper Mountain

Loc: Whatcom County. **Ore:** Unknown. **Ref:** 114, no. 5, 1909.

Mill Creek

Loc: Slate Cr. dist. **Ore:** Unknown. **Ref:** 114, no. 2, 1906, p. 22; no. 5, 1909.

Miller

(see Newton and Miller)

Mountain Top

Loc: Slate Cr. dist. **Ore:** Unknown. **Prod:** 1909. **Ref:** 158.

Newton and Miller (1)

Loc: Near W. ¼ cor. sec. 2, (39-7E), on S. side of Nooksack R. **Owner:** Messrs. Newton and Miller, Bellingham, Wash. (1938). **Ore:** Unknown. **Ore min:** None. **Deposit:** Small barren quartz veinlets and gouge seams in fossiliferous shales and sandstones. **Dev:** 200-ft. adit with several short drifts and crosscuts. Reportedly 2 other adits. **Ref:** 158.

Swift Creek

Loc: Mt. Baker dist. **Owner:** Swift Creek Mining Co. (1915). **Ore:** Unknown. **Ref:** 158.

YAKIMA COUNTY**Bob's Mine (1)**

Loc: Secs. 4 and 5, (17-11E), Summit dist. **Owner:** Gold Links Mining Co. (1939). **Ore:** Unknown. **Ref:** 158.

Ivanhoe

Loc: Yakima County. **Owner:** Ivanhoe Mining Co. **Ore:** Unknown. **Ref:** 105, no. 17, 1907, p. 522.

Welcome

Loc: Summit dist. **Ore:** Unknown. **Ref:** 58, p. 72.